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PENSOFT

First record of *Prebaetodes meridinensis* Chacón, Pescador & Segnini, 2010 (Ephemeroptera, Baetidae) from Colombia

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Abstract
We present the first record in Colombia of *Prebaetodes meridinensis* Chacón, Pescador & Segnini, 2010 based on nymphs collected in Andean region. This species was previously reported from Venezuela.

Key words
Andean region, *Baetodes* complex, South America, taxonomy.

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Introduction

Prebaetodes Lugo-Ortiz & McCafferty, 1996 is a South American genus of Baetidae (Ephemeroptera) erected by Lugo-Ortiz and McCafferty (1996) based on nymphal stages of *P. sitesi* Lugo-Ortiz & McCafferty, 1996. The imaginal stage of *Prebaetodes* was later described by Chacón et al. (2010) based on a new species from Venezuela. Two species are currently recognized within the genus: *P. sitesi* occurring in Colombia, Ecuador, and Venezuela (Domínguez et al. 2006), and *P. meridinensis* Chacón, Pescador & Segnini, 2010 restricted to Venezuela (Chacón et al. 2010). In Colombia, *P. sitesi* is widely distributed in the Andean region (i.e., Antioquia, Caldas, Cauca, Cundinamarca, Quindío, Nariño, Magdalena, Risaralda, and Valle del Cauca departments; Lugo-Ortiz and McCafferty 1996, Dias et al. 2009). Here, we report for the first time the presence of *P. meridinensis* in Colombia.

Methods

Nymphs of *P. meridinensis* were collected using an aquatic entomological net and subsequently fixed in 96% ethanol. Specimen dissections were mounted on slides using Euparal as the mounting medium and further observed under magnification. Photographs were taken by using a stereoscopic Zeiss Stemi 2000c with an Axio Cam ERc 5s camera, and further edited with Zen 2 lite, and Photoshop CS5. Individuals were identified using original descriptions of *P. meridinensis* (Chacón et al. 2010).

Examined material is deposited in the invertebrate collection at Universidad del Quindío (MIUQ) in Armenia, Colombia and in the Entomological museum of the Universidad del Valle (MUSENUV) in Cali, Colombia.

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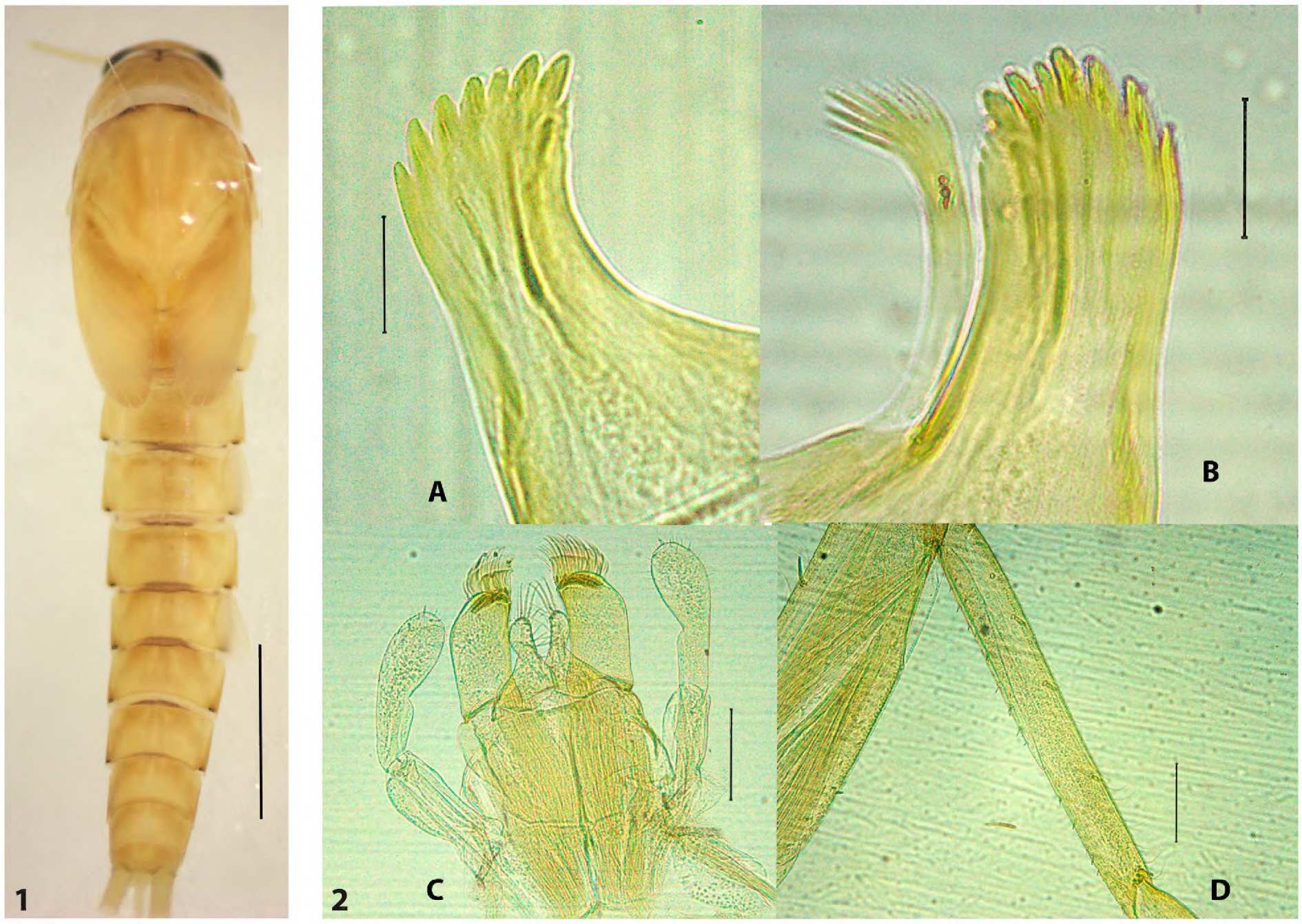

Figures 1, 2. *Prebaetodes meridinensis,* nymph. **1.** Dorsal habitus (scale bar = 0.5 mm). **2.** Diagnostic characters. **A.** Incisors of right mandible (scale bar = 20 µm). **B.** Incisors of left mandible (scale bar = 20 µm). **C.** Labium (scale bar = 20 µm). **D.** Tibia (scale bar = 200 µm).

Results

Prebaetodes meridinensis Chacón, Pescador & Segnini, 2010

Figure 1

Material examined. Colombia. Boyacá: Tunja (05°38′ 09.6″N, 073°21′56.21″W, 3056 m elev.), 07/iv/2010 (MIUQ 305, 5 spec.). Caldas: Manizales; Quebrada Romerales (05°06′6.7″N, 075°23′5.8″ W, 2810 m elev.), coll. L.G. Dias, 02/vi/2011 (MIUQ 306 1 spec.). Nariño: Pasto: Quebrada Purgatorio (01°12′49.54″N, 077°12′58.01″W, 2795 m elev.), coll. L.G. Dias, 03/xi/2008 (MIUQ 307, 2 spec.); Pasto: La Cruz (01°09′27.70″N, 077°17′07.58″W, 2800 m elev.), coll. L.G. Dias, 02/v/2008 (MIUQ 308, 2 spec.); Pasto: Mojondinoy: quebrada Santa Marta (01°12′34.29″N, 077°15′21.21″W, 2617 m elev.), coll. L.G. Dias, 07/vii/2008 (MIUQ 309, 1 spec.); San José (01°28′20.26″N, 077°04′05.35″W, 2194 m elev.), coll. L.G. Dias, 09/vi/2008 (MIUQ 310, 2 spec.); San Pablo (01°41′37.36″N, 077°00′59.01″W, 2223 m elev.), coll. L.G. Dias, 03/x/2008 (MIUQ 311, 3 spec.). Quindio: Calarca: Quebrada la Sonadora (04°26′37.2″N, 077°00′ 59.01″W, 2800 m elev.), cols. P. Villegas, J. González, 05/xii/2010 (MIUQ 045, 6 spec.). Santander: Curití (06°37′09.44″N, 073°03′59.76″W, 1674 m elev.), coll. M.Z. Zuñiga, 09/v/2009 (MUSENUV 29216, 2 spec.)

Identification. *Prebaetodes meridinensis* can be distinguished from *P. sitesi* by the following characters: dorsolateral row of long setae on scapes: absent in *P. meridinensis,* present in *P. sitesi* (Chacón et al. 2010: fig. 12); *P. meridinensis* has right mandible with 8 denticles on mandibular incisors (Fig. 2A) and left mandible with 10 denticles on mandibular incisors (Fig. 2B), *P. sitesi* has 7 and 9 denticles on right and left incisors; shape of the ventrodistal rows of long setae on paraglossa: the 2 most proximal rows have pectinate setae and the distal row has plumose setae (Chacon et al. 2010: fig. 18a, b), in *P sitesi*, all of these setae are pectinate; segment II of labial palp straight medially in *P. meridinensis* (Fig. 2C), concave medially in *P. sitesi*; shape of tibiae: straight in *P. meridinensis*, (Fig. 2D), somewhat twisted in *P. sitesi*; dorsal edge of tibia with row of 5–8 spine-like setae in *P. meridinensis* (Fig. 2D), 9–10 in *P. sitesi*. (The identification was based on Chacón et al. 2010.)

Distribution. Venezuela (Mérida), Colombia (Boyacá, Caldas, Nariño, Quindío, and Santander) (Fig. 3).

Discussion

Prebaetodes meridinensis is occurs in the state of Merida, in the Venezuelan Andes. In Colombia, this species is recorded from the Andean departments of Boyacá, Caldas, Nariño, Quindío, and Santander. Specimens of

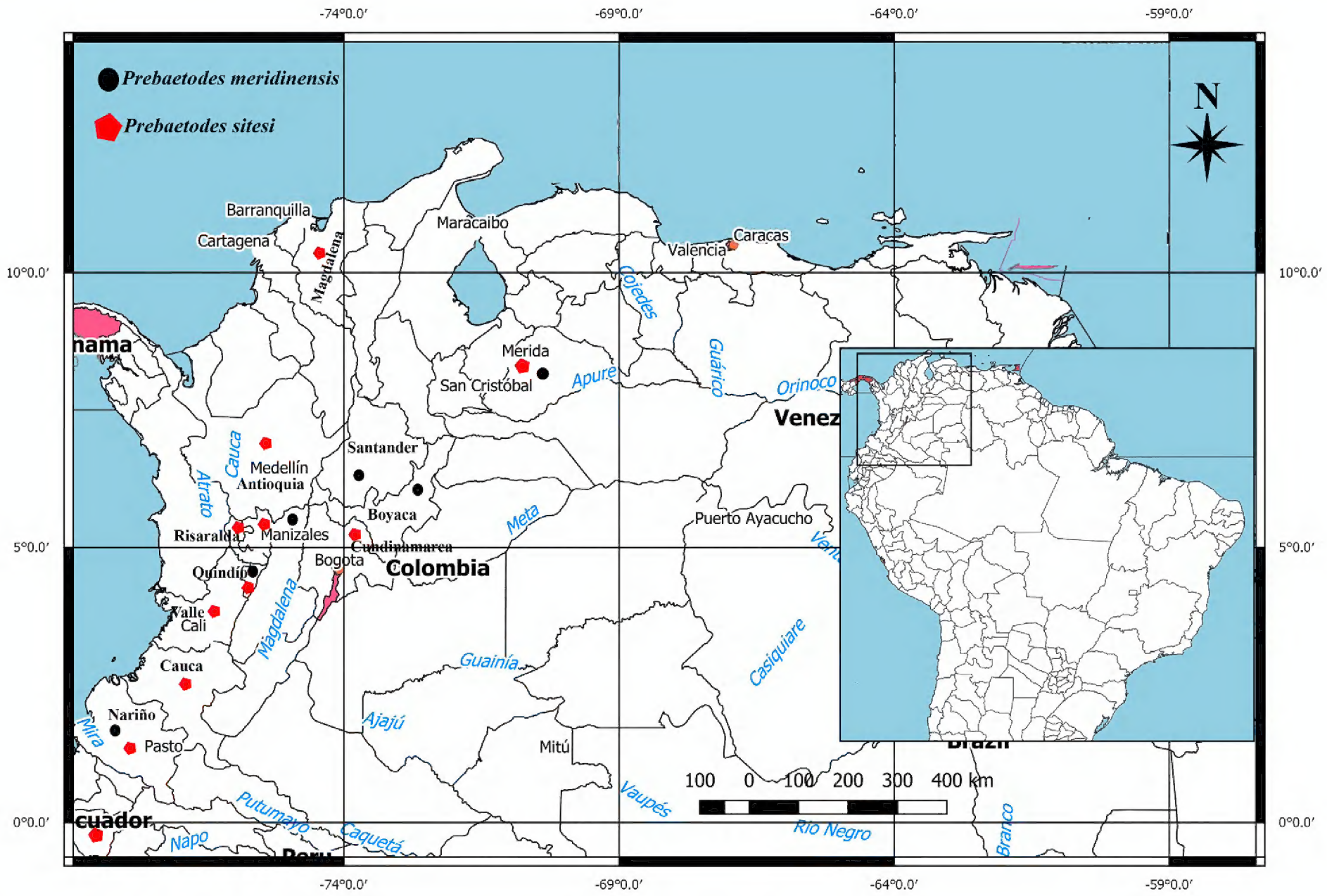

Figure 3. Geographic distribution in South America of *Prebaetodes meridinensis* and *P. sitesi.*

P. meridinensis in Venezuela and Colombia are found in freshwater habitats at high elevations. In Venezuela, this species has been collected from streams located at altitudes between 870 and 2315 m (Chacón et al. 2010). Our new records suggest that this species occurs at higher altitudes, from 1674 to 3056 m. Thus, we suggest that *P. meridinensis* is a species of the highlands and appears to be mainly restricted to localities in the Andes.

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Authors' Contributions

LGSJ and PAVA collected the data; LGSJ, PAVA and FFS identified the material; LGSJ, PAVA, FFS and CRV wrote the text.

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